

**David Bruce (1833–1903)  
and Other Entomological Collectors in Colorado\***

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**Abstract:** Brief comments upon the men who collected insects before Bruce: W. S. Wood, Jr., W. J. Howard, Jas. Ridings, A. A. Allen, Lt. MacCauley, and T. L. Mead preface a biographical sketch of David Bruce, well-known as a collector of Colorado insects from 1883 to 1897. The information about Bruce was garnered from letters written by him to Herman Strecker and newspaper articles published at the time of his death in Brockport, New York. He is best known for his cooperation with W. H. Edwards in studies of the life histories of high altitude butterflies.

Thirty-five years ago, when my interest in the butterflies of Colorado was aroused, two names were prominent as early collectors of specimens for the students of these insects. These were Theodore Lutrell Mead and David Bruce. Mead had spent the summer of 1871 in the mountains of central Colorado as a quasi-member of the Wheeler Survey party. Later he prepared the text for the portion of Volume 5 of the reports of that Survey that is devoted to Lepidoptera. In 1934 and again in 1956 I published notes about Mead's work in Colorado, including a fairly detailed itinerary of his travels based upon his collection. In my continuous search for information about the early naturalists who worked in Colorado I failed to discover much that was useful about David Bruce. I did find bits and pieces about other early naturalist-explorers—William S. Wood, Jr. who visited this part of Kansas Territory in 1859 (Brown 1957a); Winslow J. Howard, a jeweler-naturalist who followed the mining camps of the west and lived in Denver City and Central City during the early 1860's (Brown 1957a); James Ridings who was here in the summer of 1865; A. A. Allen in 1871 (Brown 1957b); and Lt. McCauley who performed a reconnaissance of the extreme southwestern portion of the state in 1877 (Brown 1958). There are others about whom I have gathered a few notes, but not enough to say more than that they visited the state.

Wood was a youngster when he was commissioned by the Entomological Society of Philadelphia to explore and collect in the Rocky Mountains, and his insects are so-labeled, "Rocky Mts." It was through examination of his bird-skins and their documentation that I discovered where in the Rocky Mountains he had spent the summer of 1859. He ranged perhaps no more than thirty or thirty-five miles from Denver spending much of his time in the foothills to the west and southwest of the budding city. He collected insects for the Society's

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cabinet and members and bird-skins for the Academy of Natural Sciences of Philadelphia.

Howard had been employed by Tiffany in New York as a jeweler and watchmaker. In 1860 he appeared in Denver. In the **Western Mountaineer** for July 19 of that year appeared this notice: "Watches and Jewelry—We solicit your special attention to the advertisement of W. J. Howard, Esq., which appears in this issue. Mr. Howard was formerly in the leading establishment in his line on the continent—that of Messers Tiffany & Co., New York City—and we are able to assure our readers from personal knowledge that any work entrusted to him will be skillfully and properly done. He has a rare collection of the natural curiosities of the Rocky Mountains, which will be found very entertaining to those interested in natural science. Give Mr. Howard a call, and if you have any interesting specimens of the mineral wealth of the country, take them with you."

Howard's place of business was on the east corner of Larimer and F. Streets in Denver. He probably moved to Central City in late 1861. He gave that city as his address in his application for membership in the Entomological Society of Philadelphia in March of 1862. In Central City he established the firm of Howard and Colony, manufacturing jewelers. Apparently Howard returned to the East in 1865. A note in the **Rocky Mountain News** of February 25, 1866, stated that he was living in Brooklyn and had married. In the fall of that year, according to the **News** for October 15, Howard passed through Denver on the way to Montana. Then I lose him until the 1870's when he was established in Prescott, Arizona. Recently I came across a lead to him in Leadville at a later date, 1879, but as yet have not been able to pin down his activities.

Ridings was a member of the Entomological Society of Philadelphia, an Englishman who by vocation was a house builder and cabinet maker. Apparently he was successful. In Cresson's history of the society this appears: "rapid increase . . . made it necessary to procure more convenient and commodious quarters . . . This need was promptly supplied by James Ridings, who generously erected for the sole use of the society, a two story brick building on the northwest corner of 13th and Rodman Streets. . . ." There is no evidence in the treasurer's accounts that the Society paid anything for the erection of the building or for rent of it.

The journey into Colorado was made by stage up the Platte River. Ridings was passenger in one of the few coaches that passed through unmolested by the Indians in 1864. By the time that he returned to the East the troops had the Indians in control along the Platte. While in Colorado Ridings' activities took him west to Empire City and north to Burlington, as Longmont then was called. One result of Ridings' collecting in Colorado was the first published summary of knowledge of the butterflies of Colorado written by Tryon Reakirt and published in 1865.



The first collector to venture deeply into the mountains was Theodore Mead in 1871. At the expense of his family and of his future father-in-law, W. H. Edwards, Mead joined the Colorado party of the Wheeler Survey. His wanderings carried him west to the Independence Pass area, north through Middle Park and south to Canyon City. The result of his work about doubled our knowledge of the butterflies of Colorado, if not of all of the Rocky Mountain Region. Outside of Colorado, only Constantin Drexler, a taxidermist from the Smithsonian, had previously done any collecting in southwestern Wyoming; and John Pearceall, a member of the Entomological Society of Philadelphia, who had accompanied the Mullen Expedition in the Bitterroot Mountain region, had contributed to our knowledge of these insects. The two had spent time in the late 1850's collecting everything that they could lay their hands upon from minerals and fossils to plants and animals.

Lt. Charles McCauley was dispatched in the summer of 1877 to make a survey of the roads in southwestern Colorado. At S.F. Baird's suggestion that "natural history collections made would be of interest" he sampled the area from Tierra Amarilla to the site of Durango travelling via the old Spanish road.

It will be noticed that none of these naturalists spent more than a few months in Colorado. It was not until David Bruce arrived on the scene in 1883 that we find a man who, year after year, searched the state for moths and butterflies. This he did until the turn of the century. It is only in the last few months that I have found any thing about Bruce except that he had collected this or that specimen. In the "Strecker hoard" in Chicago, which I am studying for the Chicago Natural History Museum with National Science Foundation support, I found 103 letters written by Bruce to Herman Strecker. What I retail from now on has been gleaned from those letters and odds and ends that I have picked up elsewhere.

Bruce wrote "newsy" letters to Strecker, although he had never met the man. The correspondence between the two started in 1882 and ended in 1897. David Bruce was born in Perth, Scotland, on June 13th, 1833; this he told Strecker in a letter dated January 30, 1883. In it he stated "my family removed to the City of Norwich, Norfolk, England, when I was less than a year old. I have since been knocking about in different parts of the world for 49 years." He early developed an interest in birds and butterflies and painting. In 1861, he fortuitously met one of the "greats" of English entomology, William C. Hewitson, noted for his beautiful precise illustrations of insects. Hewitson urged Bruce to develop his art and to devote his life to scientific illustration. Bruce did not wholly follow the advice. Later in 1861 Bruce set off for New Zealand. Let me quote him (10iv83) in reply to Strecker's query about the insects of those islands: "I am sorry to say I never captured any insects except fleas and bedbugs. I have no pleasurable recollections connected with my journey there. I went there first simply because my girl and her people went, but after being in the same vessel

with her for three months I came to the conclusion I didn't want her, so went to Australia where I didn't stay long for I was anxious to get back." "My second voyage was just after the death of my first wife. My brother was located in New Zealand. I collected birds only and done a little Agency in fine colors and paperhangings." Later on there appears another tid-bit linking Bruce to New Zealand. "I perhaps mentioned I had a son in New Zealand. My brother there had seven daughters (his second wife went in for twins) he implored me to send him one of my boys, he would send two girls for it in the way of trade. As my eldest son was willing I sent him but as I had some of my own declined the girls. Well, the luck of the family clung to poor Teddy. The vessel was lost and nothing heard of him for 15 months when he was brought back to London, having been picked up by another ship and been around the world. His passage was renewed without additional expense and he went out without any other adventures."

Bruce married Rachel Marshall at Graves End, England, in 1871 and was in Paris at the time of the Seige. When he arrived in this country I do not yet know. I suspect about 1880. He settled in Brockport, New York, and established a business in which his sons joined him. Bruce put to work his painting ability and journeyed around western New York painting frescoes for churches, hotels and mansions. He was a good business man, and did not object to doing just straight interior house painting. He was successful enough in this area to be financially free to take annual trips to Colorado to study and collect. The first of these trips was in 1883. His ticket, first class, from Rochester to Denver on the Rochester & Pittsburg and the Burlington cost \$50 for the round trip. He was able to stay only 8 days since he was called back early in July to do the interior of the Brockport Episcopal Church. In that short time he prepared 200 bird skins and caught several hundred butterflies and moths. This short first stay was made at Buffalo Creek in the Platte Canyon where he lived with an English family summering there. They were the W. G. Smith family. En route to Colorado Bruce had stayed a short time in Red Cloud, Nebraska. He had been injured falling from a scaffold about a month before his departure from the East and needed to rest en route. He made a similar stop on his hurried trip home. In late July he was again at Buffalo Creek! This time he stayed through August. In the family were young son and daughter who went with Bruce on his collecting trips. He left collecting gear with the teen-agers when he finally returned to the east.

During the winter Bruce bought a copy of Mead's report on the butterflies he had collected in Colorado in 1871. This provided him with information that he had previously lacked and he began making plans to return to our state. In mid-July, 1884, he wrote from Denver, "I returned to Denver yesterday after a sojourn of a couple of weeks in the hills. The season is very backward this year. The roads in the mountains are impassible from deep snows, yet on the whole



I don't think I have much to grumble about with my success in collecting Lepidoptera. My business venture in Colorado is at present at zero or so near a failure that I can hardly hope much of it, in fact everything here is very dull, the mining prospects are poor and nothing goes down with the monied men but the cattle business . . . I go up to the mines again on Thursday and shall stay probably two or three weeks at a high elevation (10 to 12,000 feet) and shall put in all the time I can collecting."

He returned from the high country on July 28. He had been on the summits of the Hayden Mountains at 12,000 feet. Now he planned to work the lower country at about 8,000 feet, to the west of Denver. On the 19th of August, just before he set out for home, he wrote Strecker, "I had the most cursed luck last week imaginable, for I and a friend borrowed a horse and wagon for a few days to go off on an exploring expedition for about 25 miles. On the second day out we drowned the horse and almost ourselves in crossing a stream. Had to walk 7 miles in wet clothes over the most devilish road in an awful storm of thunder, lightning, wind and hail. Had to pay 80 dollars for the horse." The return address for this letter was "c/o H. Tammen, Rocky Mountain Museum, 454 Larimer Street, Denver, Colo." During this stay Bruce's base was "two miles from Denver, right by the foothills."

On this trip Bruce had met with a rancher operating on the Cache la Poudre who was a kindred soul in loving the out-of-doors and collecting specimens. He quoted part of a letter from this cattleman-nimrod, "My friend is one of the best and most fearless hunters living and would run himself nearly to death to catch a good butterfly or shoot a rare bird for me, but he cannot get hold of the names—he tells me he shot a splendid 'White Pilgrim' the other day. That is as near as he gets to Pelican. But as long as he lets me have them he can call them what he likes."

During the summer of 1884 when in the high country Bruce made his headquarters at or near the Whale Mine in Hall Valley. When writing about plans for the next summer he told Strecker "The proprietor of the silver mine there refers in glowing terms to my visit and hopes to see me again early next summer when he will try "and make things pleasant." I visited Bruce's cabin above the Whale Mine several times in the 1930's and caught there many of the species first described from those barren highlands from Bruce's specimens.

On March 16th, 1885, Bruce wrote to Strecker, "My son in Cheyenne has a contract that will oblige him to visit all of the Forts on the Mexican and Canadian borders during the next two summers. He has invited me to go with him which I have made up my mind to do as I shall get lots of free riding and liesure to entomologize. . . . We start in middle April." Bruce's wonderful summer was doomed. In a letter of November 10 we read, "This year to me has been an utter blank entomologically and worse than that personally and financially. My son died June 13 of pneumonia. I returned from Cheyenne to find my wife had

fallen down the cellar stairs from stumbling on a kitten and hurt herself severely."

Shortly after this Bruce and Strecker had a set-to, as appears usual with all of Strecker's correspondents. From here on there no longer are gossipy and newsy letters. Bruce collected in Colorado during 1886 and 1887, principally for W. H. Edwards who quoted Bruce extensively in "Butterflies of North America," a sumptuous three-volume work. Bruce had been so successful collecting in the high country of Colorado that his material now is found in the principal museums of the world. For Edwards he collected eggs and larvae and between the two of them we know more about high altitude butterflies of Colorado than of any other high country in the world. In 1888 Bruce did not visit the state but stayed at home busy at his decorating business.

In 1889 and through the 1890's Bruce's letter-drop in Denver was George Eastwood at Taylor's Free Museum on Larimer Street. He wandered all over the western half of the State. Dr. Alexander Shaw of Denver and with interests in the D & RG Railroad saw to it that Bruce had 1,000-mile passes to carry him about in Colorado and Utah. In return Bruce built "pictures" composed of tropical butterflies mounted behind glass for Shaw. In 1892 Bruce was commissioned to gather an exhibit of moths and butterflies of the State to be part of the Colorado State exhibit at the Chicago World Fair. This he did, being given free travel and a good salary for his work. The World Fair committee paid half of these costs and Colorado Agricultural and Mechanical College at Fort Collins the other half.

One letter written March 26, 1891, gives us a verbal picture of Bruce. Strecker had written to him asking for a photograph. Bruce replied "have not had my 'pictur' taken in America at all—but soon will—I am old and grey (56) but very active, eyes and teeth as good as ever—5 7½—weigh 200 pounds—fresh ruddy complexion yet long grey beard—now you ought to know me when I drop on you as I shall one day." Bruce never did visit Strecker.

During 1892 and 1893 while working at Glenwood Springs Bruce became very much interested in what he believed to be natural hybrids that he was catching. This was a biologically moot point that many naturalists denied occurring. Later, in 1894, his patron W. H. Edwards joined him in this study at Glenwood Springs and the facts were proven conclusively. In connection with these studies Bruce wrote Strecker, who questioned natural hybridism, "I am afraid hybridism is common in Colorado. Whoring is a recognized institution in all mining districts and the insects have taken to it as well as the genus *Homo*."

Early in 1893 Bruce sold his private collection to the University of Wisconsin at \$100 per thousand specimens. This was Bruce's going price to all comers. The size of the Wisconsin purchase made no difference. Material poured from Brockport to Madison until in late 1895 the University called a halt. They had run out of room in the museum! Two families were yet to be shipped, the



smaller Noctuids and all of the Geometrids. I wrote to Dr. Shenefelt at Wisconsin to learn more about this collection and to find out whether or not they had received the rest of it. He had the University archivist, Mr. J. E. Boell, look into the matter. His reply to Dr. Shenefelt was, "We have searched high and low for information on this collection, but the only thing that we could find was that the Regents authorized expenditure of funds for a wire partition up in Science Hall to hold the butterfly collection. We could find nothing in the financial records that indicated a payment to Bruce for this collection. We have no letters between Bruce and Owen." From the forgoing it seems probable that Owen himself was paying for the collection and that it rests, unmarked, among the Owen Collection.

The Owen Collection no longer is at the University of Wisconsin. A recent letter from Mr. William Sieker, of Madison, Wisconsin, reads in part "When I came to school here in 1931, Owens Collection was being shipped to the U. S. National Museum. I was hired (at about 50¢ an hour) to pin the insects more securely into the boxes. I was pretty green then, and was overwhelmed with the size of his collection. It was big—but lacked labels by the thousands, as Owen, I guess, was not too particular about data. This I gathered from what others have said and what short opportunity I had to observe his collection." Owen probably used a collection method that was in vogue during the late 19th Century. This was to put all of the data on a general label at the head of each series and none on the specimens themselves. A variant of this was to label the first specimen of a series with a pin-label containing the locality data and follow this specimen with the rest of the series without labels. Once such a collection is disturbed it is hopeless to try to label the specimens correctly.

Bruce was now in his sixties. He did not take to the field in 1895 nor in 1896. He did return to Colorado in the following year and joined forces with John T. Mason. This proved unsatisfactory to Bruce in many ways. He did not get on well with Mason in the field and the two men had totally different ideas about how to split the monetary rewards for the work. The Mason Collection is in the Denver Museum of Natural History.

I know little of Bruce from this time on until his death on September 24, 1903. Fifty years after that event Mr. A. E. Elwell, well on in his eighties, wrote about Bruce for the **Brockport Republic-Democrat** of November 25, 1954. This article stresses Bruce's ability as a taxidermist and artist. From it I gather that the now almost universally used "habitat group" method for exhibiting specimens in Museums was a creation of Bruce, not Ackley. Bruce's death was a sudden one. The **Brockport Republic** for October 1, 1903, published, "Soon after entering the yard of Mrs. John Sheplar on the Moscow Road in Hamlin, Thursday afternoon, David Bruce fell to the earth and expired before being found. He was seen to enter the yard and a moment later when the family looked

out, Mr. Bruce was discovered on the ground and examination showed that he had died." Bruce is buried in the Lake View Cemetery in Brockport, N. Y.

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Through the courtesy of Mrs. Willis Knapp, Chairman of the Brockport Museum Committee, I received typed copies of the obituary for Bruce and of Mr. Elwell's article cited in the text.

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